Numerical Analysis

For the Numerical Analysis examples sessions, you will mainly be using Microsoft Excel, which is installed on all cluster, lab and MSc room machines. Excel can be launched from Start button (Windows 7), or All Apps (Windows 10), and usually has a quick launch icon in the toolbar.

Once you have opened Excel, save the blank document immediately to your University OneDrive storage (to save you remembering later) and start work. Do not save your work to any drive on the local machine. You should not expect any work saved on a local disk to be there when you log back in again. Always use your OneDrive Folder. It is also a good idea to save your work to a USB memory stick.

To use the fitting program, POLYFIT, mentioned in the notes, follow the instructions for logging onto the UNIX server *phymat4* or *phymat6* in USING THE COMPUTING FACILITIES which is on the LM PH605 PRACTICAL SKILLS FOR REACTOR PHYSICS section of Canvas. To execute the program, type **"∼forestd/Polyfit/polyfit"** (note: UNIX systems care about upper and lower case letters, so don't forget the capital 'P'!) and follow the instructions. You can enter data by hand, or create a data file. The data file should contain, in plain text, two (for unweighted fits) or three (for weighted fits) columns of numbers representing either "x-value", "y-value", or "x-value", "y-value", "standard deviation of the y-value" respectively. To create a data file, cut-and-paste from Excel to a Windows text editor such as NotePad or WordPad (save as a text file, not Rich Text Format) and save the file to *phymat* (see USING THE COMPUTING FACILITIES in the PH605 section of Canvas). Alternatively, you could create a text file while logged onto the UNIX server by using the editor **emacs**, described in the FORTRAN Introductory Material, and you would need to have started Exceed to use this.